NUS National University of Singapore | Department of Biological Sciences, Faculty of Science

SEMINAR

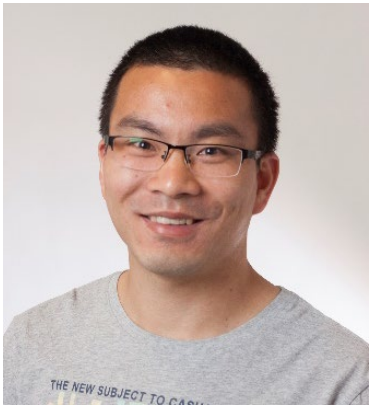
Tues, 3 Sept 2024 | 10 am | DBS Conference Room 1

Hosted by Prof Prakash Kumar

FUN? Biological nitrogen Fixation Under Nitrate in legumes

By **Jieshun Lin**

Aarhus University, Denmark



Nitrogen is one of the most essential nutrients and is often the limiting factor for crop production. In addition to nitrogen uptake through the root system, legumes can obtain adequate nitrogen through symbiosis with rhizobia in root nodules. However, biological nitrogen fixation is an energy-intensive process. When plants are exposed to sufficient nitrogen or stressful (biotic or abiotic) environments, nodule formation and biological nitrogen fixation are suppressed. Understanding how biological nitrogen fixation adapts to changing climates will provide the molecular and genetic basis to improve nitrogen fixation efficiency in legume crops. In this presentation, I will use nitrate as an example to illustrate how environmental factors regulate biological nitrogen fixation in legumes.

About the Speaker

Jieshun Lin, Assist. Prof, Dept of Mol Biol and Genetics, Aarhus Univ (from 2022). PhD (2018) from the Inst of Plant Physiol & Ecology, Chinese Acad of Sciences. He did his postdoctoral research at Aarhus Univ (2018-2022).

His research focuses on the establishment of legume-rhizobia symbiotic interactions and biological nitrogen fixation under various environmental conditions.